# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/965,283 | 09/25/2001 | Randy P. Stanley | 42390P12376 | 3844 |

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| EXAMINER |
|---|
| HOFFMAN, BRANDON S |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2136 | |

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
| | 09/965,283 | STANLEY, RANDY P. |
| **Office Action Summary** | | |
| | Examiner | Art Unit |
| | Brandon Hoffman | 2136 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.  2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-29* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☒ Claim(s) *23* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *5-7*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

## DETAILED ACTION

### *Claim Objections*

1.    <u>Claim 23</u> is objected to because of the following informalities:

• The last line of the claim states "period of time period of time." Please remove

one 'period of time.'

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2.    The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.    <u>Claims 1-8, 10-27, and 29</u> are rejected under 35 U.S.C. 102(b) as being

anticipated by <u>Fung</u> (U.S. Patent No. 5,396,635).

Regarding <u>claim 1</u>, <u>Fung</u> teaches a method, comprising:

• Detecting a user event in a computing system (col. 3, lines 12-21);

• The computing system including an integrated circuit having multiple states of

performance including a first state of performance, a second state of

performance higher than the first state of performance, and a third state of

performance higher than the second state of performance, the computing system

having a power supply which includes a battery (col. 1, lines 59-64 and fig. 8,

'sleep', 'doze', and 'on'); and

- Directly transitioning the integrated circuit from the first state of performance to the third state of performance based upon detecting the user event (col. 3, lines 32-38).

Regarding claim 2, Fung teaches wherein the user event is defined by a programming environment within which the computing system is operating (col. 3, lines 12-21).

Regarding claim 3, Fung teaches wherein directly transitioning comprises transitioning without delay (col. 3, lines 39-48).

Regarding claim 4, Fung teaches further comprising operating the integrated circuit at the third state of performance for a predefined period of time based upon thermal considerations to operate at the third state of performance without failure (fig. 8, the 'on' state only lasts for brief periods of time, and col. 3, lines 27-31).

Regarding claim 5, Fung teaches wherein the computing system comprises a laptop computer (col. 2,lines 19-29).

Regarding claim 6, Fung teaches wherein the computing system comprises a personal digital assistant (col. 1, lines 22-23).

Regarding claims 7, 20, 24, 27, and 30, Fung teaches an apparatus/machine-readable medium, comprising:

- A computer readable medium (fig. 1, ref. num 15 and fig. 2);

- Detecting a user event in a computing system (column 3, lines 12-21);

- A first integrated circuit having multiple states of performance including a first state of performance, a second state of performance higher than the first state of performance, and a third state of performance higher than the second state of performance, the first integrated circuit coupled to the computer readable medium (col. 2, lines 1-6 and fig. 8, 'sleep', 'doze', and 'on'); and

- A program stored in the computer readable medium to manage power consumption within the first integrated circuit, instructions associated with the program to directly transition the first integrated circuit from the first state of performance to the third state of performance based upon detecting a user event (col. 3, lines 32-38).

Regarding claims 8 and 31, Fung teaches wherein the first state of performance comprises a first voltage level and a first operating frequency (col. 6, lines 16-19).

Regarding claims 10, 21, 25, 29, and 33, Fung teaches further comprising frequency regulation logic to change an operating frequency of the first integrated circuit, the frequency regulation logic to receive a signal from the program (col. 6, lines 45-48).

Regarding claims 11, 22, and 26, Fung teaches further comprising voltage

regulation logic to change an operating voltage of the first integrated circuit, the voltage

regulation logic to receive a signal from the program (col. 6, lines 53-62).

Regarding claims 12-14, Fung teaches wherein the instructions reside in a Basic

Input Output System, an operating system, or an application software (col. 5, lines 64-

68).

Regarding claim 15, Fung teaches wherein the first integrated circuit comprises a

chip set (col. 4, lines 40-50).

Regarding claim 16, Fung teaches wherein the first integrated circuit comprises a

processing unit (fig. 1, ref. num 4).

Regarding claim 17, Fung teaches wherein the Basic Input Output System is to

receive a notification signal from an operating system that the user event has occurred

(col. 5, lines 64-68).

Regarding claim 18, Fung teaches wherein the program comprises an increasing

state transition algorithm discrete from a decreasing state transition algorithm (col. 3,

lines 1-11).

Regarding claim 19, Fung teaches wherein the program to transition the first

integrated circuit to a next higher state of performance based upon an occurrence of a

non-user event increasing utilization of the first integrated circuit over a preset threshold

(col. 3, lines 22-31).

Regarding claim 23, Fung teaches operating the integrated circuit at the third

state of performance for a transient period of time (fig. 8, the 'on' state only lasts for brief

periods of time).

### Claim Rejections - 35 USC § 103

4.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.      Claims 9, 28, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Fung (U.S. Patent No. 5,396,635) in view of Hawkins et al. (EP 0,708,398).

Regarding claims 9, 28, and 32, Fung teaches all the limitations of claims 7, 27,

and 30, respectively, above. However, Fung does not disclose wherein the third state

of performance comprises a second integrated circuit co-processing instructions with

the first integrated circuit.

Hawkins et al. teaches wherein the third state of performance comprises a second integrated circuit co-processing instructions with the first integrated circuit (page 7, table I).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine a second IC co-processing instructions for a third state, as taught by Hawkins et al., with the apparatus/readable medium of Fung. It would have been obvious for such modifications because a second processor processing during a third state of performance provides full speed processing power (see page 7, lines 29-33 of Hawkins et al.).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon Hoffman whose telephone number is 703-305-4662. The examiner can normally be reached on M-F 8:30 - 5:00. However, my new office number will be 571-272-3863 after our October move.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

BH

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